AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method of processing a substrate on a ceramic substrate heater in a process chamber, the method comprising:

forming a sacrificial protective coating on the ceramic substrate heater in the process chamber prior to placing a substrate on the substrate heater, including:

(a) exposing the ceramic substrate heater to a metal-containing gas to deposit a first layer of the metal on the ceramic substrate heater, and

(b) exposing the ceramic substrate heater to at least one non-metal-containing gas to deposit the at least one non-metal on the first metal layer,

wherein the sacrificial protective coating comprises a non-metal layer surface portion for receiving a substrate, and wherein the non-metal layer surface portion includes a first surface portion for receiving a substrate and a second surface portion that remains exposed when the first surface portion receives a substrate; ~~and~~

~~processing at least one substrate on the coated ceramic substrate heater,~~

(c) placing the at least one substrate on the first surface portion of the non-metal layer surface portion and thereafter subjecting the substrate to a process during which additional metal is deposited on the second surface portion;

(d) removing the processed substrate from the process chamber and again exposing the coated ceramic substrate heater to the at least one non-metal-containing gas to deposit additional non-metal to cover the additional metal;

(e) repeating (c) and (d) until a desired number of substrates have been processed; and

(f) stripping the sacrificial protective coating and additional metal and non-metal deposits from the ceramic substrate heater.

2-7. Canceled

8. Canceled

9. Canceled

10. Canceled

11. (Currently Amended) The method according to claim 1, wherein the non-metal layer surface portion is silicon or ~~carbon~~ graphite.

12. (Original) The method according to claim 1, wherein the ceramic substrate heater comprises at least one ceramic selected from the group consisting of AlN, Al_2O_3, SiC, and BeO.

13. (Currently Amended) The method according to claim 1, wherein the metal of the sacrificial protective coating comprises Re, Ru, Ta, Ni, or Cr or a combination of two or more thereof.

14. (Previously Presented) The method according to claim 1, wherein the metal-containing gas comprises at least one metal-carbonyl gas selected from the group consisting of $Ru_3(CO)_{12}$, $Ni(CO)_4$, $Co_2(CO)_8$, $Rh_4(CO)_{12}$, $Re_2(CO)_{10}$, and $Cr(CO)_6$.

15. (Original) The method according to claim 1, wherein the non-metal-containing gas comprises a silicon-containing gas, a hydrocarbon gas, an oxygen-containing gas, or a nitrogen-containing gas or a combination of two or more thereof.

16. (Original) The method according to claim 1, wherein the non-metal-containing gas comprises SiH_4, Si_2H_6, $SiCl_2H_2$, Si_2Cl_6, an alkane, an alkene, an alkyne, O_2, O_3, CO_2, CO, N_2, NO, NO_2, or N_2O or a combination of two or more thereof.

17. Canceled

18. (Previously Presented) The method according to claim 35, wherein the metal-containing gas comprises $Ru_3(CO)_{12}$ and the non-metal-containing gas comprises SiH_4.

19-22. Canceled

23. (Original) The method according to claim 1, wherein the forming further comprises heating the substrate heater to between about 100°C and about 800°C.

24. (Original) The method according to claim 1, wherein the forming further comprises heating the ceramic substrate heater to between about 300°C and about 600°C.

25. Canceled.

26. Canceled.

27. (Currently Amended) The method according to claim 1 ~~claim 26~~, wherein the non-metal layer comprises Si.

28. (Currently Amended) The method according to claim 1 ~~claim 25~~, wherein the process during which additional metal is deposited on the second surface portion ~~the performing comprises carrying out at least one process~~ is selected from the group consisting of a TCVD process, an ALD process, a PECVD process, and an etching process.

29. Canceled

30. Canceled.

31. Canceled.

32. (Currently Amended) A method of processing a substrate on a ceramic substrate heater in a process chamber, the method comprising:

forming a Si/Ru protective coating on the ceramic substrate heater in the process chamber prior to placing a substrate on the substrate heater, including:

exposing the ceramic substrate heater to $Ru_3(CO)_{12}$ to deposit a Ru layer on the ceramic substrate heater, and

thereafter, exposing the ceramic substrate heater to SiH_4 to deposit a Si layer on the Ru layer; and

processing at least one substrate on the coated ceramic substrate heater, including:

providing a substrate to be processed on the coated ceramic substrate heater,

performing a Ru deposition process on the substrate by exposing the substrate to $Ru_3(CO)_{12}$; and

removing the processed substrate from the process chamber.

33. Canceled

34. (Previously Presented) The method according to claim 32, further comprising forming a Si layer on the protective coating following the removing, and repeating the processing at least once.

35. (Previously Presented) A method of processing a substrate on a ceramic substrate heater in a process chamber, the method comprising:

forming a protective coating on the ceramic substrate heater in the process chamber prior to placing a substrate on the substrate heater, including:

(a) exposing the ceramic substrate heater to a metal-containing gas to deposit the metal, wherein the metal-containing gas comprises a Ru-containing gas, and

(b) exposing the ceramic substrate heater to at least one non-metal-containing gas to deposit the at least one non-metal, wherein the non-metal-containing gas comprises a silicon-containing gas,

wherein the protective coating comprises a surface portion for receiving a substrate, and wherein the surface portion is one of a non-metal layer or a combined metal/non-metal layer; and

processing at least one substrate on the coated ceramic substrate heater.

36. (New) The method according to claim 35 further including:

removing the at least one substrate and stripping the protective coating from the ceramic substrate heat.

37. (New) The method according to claim 1 wherein the sacrificial protective coating substantially covers the exposed surfaces of the ceramic substrate heater.

38. (New) The method according to claim 1, further comprising repeating (a) through (f) at least once.